ORIGINAL

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FAX: (202) 686-8282

August 11, 1992

Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N. W.
Washington, D. C. 20554

Re: Positive Alternative Radio, Inc.,
Channel 207A, Asheboro, North Carolina
File No. BPED-911119MC

Dear Ms. Searcy:

On behalf of Triad Family Network, there are transmitted herewith an original and four (4) copies of a Petition to Deny the above-referenced application of Positive Alternative

Before the
Federal Communications Commission
Washington, D.C. 20554

In Re Application of	)	
	)	
POSITIVE ALTERNATIVE RADIO, INC.	)	File No. BPED-911119MC
	)	
For Construction Permit for New FM Broadcast Station on Channel 207A at Asheboro, NC	)	

TO: Chief, Audio Services Division
Mass Media Bureau

PETITION TO DENY

Triad Family Network ("TFN"), by its attorneys, pursuant to Section 309(d) of the Communications Act of 1934, as amended, and Section 73.3584 of the FCC's Rules and Regulations, hereby requests that the above-captioned application of Positive Alternative Radio, Inc. ("PAR") be denied. In support hereof, the following is shown:

TFN and PAR are mutually exclusive applicants for Construction Permits for new non-commercial educational FM broadcast stations. TFN seeks a Construction Permit on Channel 207 at Winston-Salem, North Carolina, while PAR has requested a Construction Permit on Channel 207 at Asheboro, North Carolina. These applications have been recognized as mutually-exclusive by the Commission in its letter (Reference 8920-ESR) dated June 9, 1992, a copy of which is appended to

the Engineering Statement attached. As such, TFN clearly has standing to file the Instant Petition.

The PAR application appeared on the FCC's Cutoff List (Report No. B-146) released July 7, 1992, establishing August 11, 1992 as the date for filing Petitions to Deny. Inasmuch as the Instant Petition is filed within that time frame, the Petition is timely.

PAR has specified a directional FM antenna sidemounted on one of the towers comprising the directional array of AM Radio Station WKXR, Asheboro, North Carolina.[1] PAR has, of course, certified that the site specified is available to it.

The Engineering Statement attached hereto[2] clearly demonstrates that PAR's proposal to sidemount its directional FM antenna on a tower of WKXR's two-tower directional array at a height which not only is close to WKXR's sampling system, but also is within the guy wires supporting WKXR's tower, will have two significant effects. First, PAR's proposal will cause significant (and possibly irreparable) disruption to WKXR's directional pattern. Admittedly, PAR will (or should) be financially responsible for adjustment of the WKXR pattern

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[1] PAR is proposing a directional antenna in order to provide protection to co-channel stations WXYC, Chapel Hill, North Carolina and WSOE, Elon College, North College.

[2] Although styled as a Petition to Deny, the attachment, which bears a facsimile signature of the engineer, is clearly an engineering statement in support of the instant petition.

to its licensed parameters. However, this assumes that it is even possible for a disruption of this magnitude to be corrected. The attached Engineering Statement provides details which lend considerable doubt to this assumption.

Secondly, significant questions arise as to whether PAR's own directional antenna can be constructed and operated (given the near presence of re-radiators) in a manner which will protect co-channel stations and operate in accordance with the permit which PAR seeks.

Information presently before the Commission[3] falls far short of establishing that PAR's proposal is viable. While any of the individual shortcomings established in the attached Engineering Statement may be capable of explanation, the sum of the deficiencies leads inexorably to the conclusion that PAR's proposal is, at best, a dream, and, at worst, a nightmare.

Totally apart from the strictly engineering defects noted in the attached Engineering Statement, the efficacy of PAR's site availability certification must be questioned. In particular, the Commission should be reasonably assured that the WKXR licensee was fully aware of the potential disruption

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[3] While TFN would have preferred an opportunity to study PAR's response to the Commission's June 9, 1992 letter, the establishment of a cut-off date for petitions to deny has precluded that possibility. However, TFN reserves the right to submit such additional comments as may be appropriate after having had the opportunity to study PAR's response.

to its signal and the potential need to file one or more applications with the Commission because of such disruption. In short, was there informed consent? If not, there is more than reasonable cause to believe that PAR never had "reasonable assurance" of the availability of its proposed site. Further, TFN has now raised extremely serious questions concerning the suitability of the proposed site, even assuming its availability. While the Commission's letter raised certain minor questions concerning the suitability of the site in terms of occupational hazards and other environmental requirements, those issues pale in comparison with the serious questions raised herein.

For all of the reasons herein stated, and further explained in the attached Engineering Statement, it is respectfully requested that the above-captioned application be denied.

Respectfully submitted,

TRIAD FAMILY NETWORK

By _____
B. Jay Baraff
Its Attorney

BARAFF, KOERNER, OLENDER
& HOCHBERG, P. C.
5335 Wisconsin Avenue, N.W.
Suite 300
Washington, D.C. 20015-2003
(202) 686-3200

AUGUST 11, 1992
PETITIONTODENY\AUG11'92\TRIAD\23190.00

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C.

In the matter of:	)	
	)	
POSITIVE ALTERNATIVE RADIO, INC	)	File # BPED-911119MC
NEW FM, Asheboro, North Carolina	)	
Seeks: Channel 207A, 2.5 kw H&V, 120 M	)	

To: Chief, FM Branch

PETITION TO DENY

Comes now Triad Family Network (TFN), who, pursuant to § 73.3584 of the Commission's Rules and Regulations, seeks to present a Petition to Deny the above-captioned application of Positive Alternative Radio, Inc (PAR). In support whereof TFN present the folliwing:

1. Standing and History TFN is the lead applicant for a NEW FM station at Winston-Salem, North Carolina (BPED-910227MD). This application was tendered on February 27, 1991; accepted for tender per FCC list #14944 on March 7, 1991; accepted for filing and placed on A-Cutoff list #A-227 which expired on November 19, 1991; and is now outstanding before the Commission. PAR filed a mutually exclusive application at Asheboro, North Carolina on November 19, 1992; accepted for tender on December 2, 1991; accepted for filing and placed on B-Cutoff list #146, released 7 July 1992. The last day to file Petitions to Deny is August 11, 1992. PAR seek Channel 207A with 2.5 kw and 120 meters above the average terrain. TFN seek Channel 207C3 with 6.92 kw and 41 m HAAT. PAR and TFN have mutual exclusivity since TFN's predicted 40 dBuV contour overlaps the PAR predicted 60 dBuV contour. The Commission sent a "60-day letter" (Exhibit 1) directing both applicants to attempt resolution of their mutual exclusivity. Exhibit 1 also directs PAR to furnish directional antenna information and occupational exposure prevention statements. As PAR and TFN

permit WKXR to continue operating within its authorisation. A second issue is that PAR fails to make all of the requisite showings in § 73.316[c] as regards its own FM directional. A third issue is that the PAR FM antenna, by altering the current distribution on WKXR's north tower, constitutes a de facto minor change for which WKXR has not filed FCC Form 301. All of these points - even taken separately - are sufficient to warrant denial or dismissal PAR's application under the "hard look" processing rules (See Report and Order in Docket 84-750, 50 FR 19936 (1985).) In particular, ignoring a major Commission directive as regards AM stations protection

[redacted]

after reviewing Commission license files, there is no overt evidence that WKXR's sampling system is acceptable under § 73.68 of the Rules. Should WKXR's sampling system be unacceptable (i.e. grandfathered under old AM rules) a serious question exists as to whether the FM modification will require WKXR to construct an approved sampling system.

Rule 73.68[a][1] states that, in pertinent part "[sampling system components] must provide accuate and stable signals to the monitor ... with all system components protected from physical and environmental disturbances." The PAR directional FM antenna has a radiation centre at 15 meters. The WKXR directional AM current loop is at 24 meters. The PAR directional FM antenna is located 4.5 meters from the AM tower current loop. Certainly, mounting an FM antenna extremely closely to the AM tower point of maximum current distorts the current flux of the AM tower and can affect the stability of WKXR's sampling system, wherever it may be. (Should WKXR be using toroid current transformers that sample the base current rather than loop current, the FM antenna will still affect the AM antenna's current distribution).

5. The PAR antenna affects the WKXR pattern. We have established that PAR's antenna is proposed to be located near the point of maximum current on WKXR's tower. The cross-sectional area of an FM directional antenna, in the horizontal plane, is of similar dimension to WKXR's uniform, steel guyed tower. No studies, per § 73.315[g] have been made to determine that altering one of WKXR's towers from an assumed sinusoidal current distribution would raise interference to other co- and adjacent

on a directional pattern is not nearly as great as the current flowing near the top of an AM tower is negligible. In the bottom mounting case, the current flowing in the tower reaches a maximum 90° from the top, and in WKXR's specific case, the location of the FM antenna is near the current loop.

PAR's proposal to use the WKXR antenna near WKXR's current loop/base modifies WKXR's current distribution. As such, this mounting by PAR cannot guarantee the Commission's assumption in calculating degrees of protection afforded by WKXR to other stations by WKXR's antenna is valid. The specific assumption is that WKXR formerly was presumed to have sinusoidal current distribution on both towers. PAR's antenna will upset that distribution. PAR's proposed antenna constitutes a de facto minor change to WKXR's antenna. WKXR has not filed FCC Form 301 consenting to the minor change.

Should WKXR be in effect creating a minor change, it would be required to reduce its AM radiation 10% at night for stations where WKXR contributes to the 50% exclusion level of other AM stations. (See Report and Order, MM Docket 87-267, Mimeo 38244 at para 70.) Power reductions that may be

not file the requisite certification as to the method by which PAR will assure the Commission its proposed directional, if constructed, will actually be mounted in the correct orientation (See Memorandum Opinion and Order, Docket 87-121 (RM-6025), 6 FCC Rcd 5356 (1991), in particular, Issue 10 and the Ordering Clause as regards § 73.316[c][8]). Encroachment of the PAR antenna by various cables used by WKXR (e.g. lighting, control, sampling) give other pause for concern. (See § 73.316[c][6] and [c][7]). The docket 87-121 Report and Order and its accompanying MO&O have been around sufficently long for PAR to have notice of the stringent requirements in proposing a directional FM antenna, and the required showings. The Commission's letter of June 9 (Exhibit 1) points out some of the descrepancies. The remaining PAR deficiencies are a tenderability defect under the "hard look" doctrine. PAR's application should be dismissed on this point alone.

8. The PAR FM directional cannot necessarily be built as tested by its manufacturer. Ordinarily, FM antennas are mounted as far away as possible from potential reradiating structures. Even in the trivial, non-directional case, it is highly desirable (to avoid lapses in coverage) to mount an FM antenna away from tower structures, lights, guy wires, and other assorted potential reradiators. Ideally, they are put on a steel pipe specified by the antenna manufacturer with a smaller cross-section than the active volume of the FM antenna's elements.

PAR proposes mounting a very sharp directional near the bottom of an AM tower. The gain reduction towards co-channel FM stations WXYC Chapel Hill and WSOE Elon College, NC is between 10 dB and 12.5 dB. Reradiators in the vicinity of the induction field of the PAR FM proposal could cause prohibited interference to WXYC and WSOE.

It is common knowledge that AM radio stations have numerous structures such as fences, tuning boxes, lighting equipment, sampling apparatus, and so forth near the bottom of the tower. PAR proposes to develop very high currents in the vicinity of the AM apparatus at the bottom of WKXR's tower. The potential for reradiation from these devices cannot be established at the proof of the PAR antenna should it be constructed (since it is impractical to duplicate the rearadiators near the bottom). Since the "proof" version (on which the Commission makes a licensing decision) for PAR's FM antenna and the actual version if it were constructed are not reasonably repeatable and certainly different, PAR's "as built" antenna does not provide adequate assurance to the Commission that potential interference to WXYC and WSOE

is prevented. Without that assurance the PAR application is defective and must be dismissed or denied.

Another problem arises with the multiple AM tower guy wires passing through the aperture of the FM antenna, being reradiators in and of themselves.

Reflection of VHF signals, causing multipath and scattering, is amply documented in the literature (See IEEE Transactions on Broadcasting, September, 1988 - the case involves a survey of the Los Angeles VHF-TV stations ghosting caused by some LA VHF stations having antennas whose apertures are located on the surface of another tower). With high suppression and reradiators much closer to the PAR antenna than the LA case, PAR's antenna cannot provide WXYC or WSOE assurance of interference protection.

9. If sampling transformers are used, they may damage WKXR's sampling equipment, causing drift in calibration. Should WKXR be using open turn sampling transformers, either 3 meters above the ground or at the 24 meter level, an FM antenna can be expected to highly efficiently couple into a sampling system (the problem with current transformers as sometimes used is much less). Voltages will be created at the phase monitor end of WKXR's antenna that, combined with the AM voltages, may exceed the dissipation rating of the phase monitor terminating resistors - causing progressive damage and sampling system drift. Also, unlike the case where the FM antenna is at the top, sufficient FM energy may very well make it into the metering circuits of the phase monitor, upsetting WKXR's ability to maintain its directional pattern. If WKXR is using open loops, PAR's application will render the WKXR sampling system impotent as designed. PAR's application did not address this potential problem and accordingly is defective.

10. Conclusion. For the reasons outlined above, the PAR proposal to mount the FM antenna on an AM directional antenna system is contrary to Commission rules and good engineering practice. It has been amply demonstrated that serious questions exist as to whether the Commission can discharge its interference-control mandate with the PAR proposal. Accordingly the PAR application must be denied or dismissed.

I certify under penalty of perjury that the statements presented herein are true to the best of my knowledge and belief.

York David Anthony
Consulting Engineer
Triad Family Network, Inc.

This the 10th day August, 1992.

EXHIBIT 1
TRIAD FAMILY NETWORK, INC.
NEW FM, WINSTON-SALEM, NC
PETITION TO DENY
AUGUST 10, 1992

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

09 JUN 1992

IN REPLY REFER TO:
8920-ESR

Triad Family Network, Inc.
1249 Trade Street
Winston-Salem, NC 27101

Positive Alternative Radio, Inc.
Post Office Box 889
Blacksburg, VA 24063-0889

In re: NEW(FM), Ashboro, NC
Positive Alternative Radio, Inc.
BPED-911119MC

NEW(FM), Winston-Salem, NC
Triad Family Network, Inc.
BPED-910227MD

Dear Applicants:

Preliminary engineering studies of the above-referenced applications reveal that the proposed facilities would result in mutual electrical interference if they were constructed as specified in the subject applications. Thus, the applications are considered to be mutually exclusive as they now stand. Grant of either of these applications would come only after a comparative hearing.

The policy of the Commission is to avoid sending educational applications to hearing, if at all possible, so that the substantial delays and expenses involved in the hearing can be avoided. This policy finds its underpinnings in the inability of many educational applicants to bear the costs (such as legal fees) that would incur in prosecuting mutually exclusive applications through the hearing process.

Accordingly, we are taking the opportunity to make you aware of your application's mutual exclusivity. We will withhold further action with respect to the subject applications for a period of sixty (60) days so that you have an opportunity to evaluate the situation and hopefully take such steps as would remove the mutual exclusivity. Possible alternatives include the use of a directional antennas for mutual protection, decreases in operating powers of the antenna heights and frequency changes to increase the spectral separation of the proposed facilities. Share-time agreements between mutually exclusive educational applicants have also been employed to avoid designating their applications for hearing.

Therefore, we urge you to communicate with each other concerning this matter and, if possible, to amend your applications so as to remove the present conflict between them. This would be in the interest of each of you and of the public that you are both proposing to serve.

Regarding application BPED-911119MC, an engineering review of your application reveals that you did not sufficiently address the issue of potential occupational hazards caused by the proposed facility. You propose to side-mount your antenna on the existing tower of WKXR(AM). However, in situations like yours where there are multiple contributors to radiofrequency radiation, it is necessary to submit a certification that an agreement will be in effect requiring all stations to reduce power or cease operations as necessary to assure worker safety with respect to radiofrequency radiation when construction or maintenance is to be performed at the site. Therefore, you must amend your application to include such a certification.

In addition, you state in your application that the AM tower will have a 3 meter fence surrounding the base of the tower. However, according to a study based on OST Bulletin No. 65, October, 1985 entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation," our worst-case calculations show that the fence must be at least 7 meters from the base of the tower. Therefore you must also submit a showing pursuant to the Public Notice dated January 28, 1986, mimeo 2278. Please specify your proposed antenna type in order for us to verify your calculations.

A further engineering review of application BPED-911119MC reveals that your application does not comply with 47 C.F.R. § 73.316(c)(2). The directional antenna plot of the relative horizontal field plane pattern which you submitted in your application is not oriented properly. 47 C.F.R. § 73.316(c)(2) specifically states that, "[t]he plot of the pattern must be oriented such that 0° corresponds to the direction of maximum radiation..." Therefore you must submit a new plot which complies with the provisions of 47 C.F.R. §73.316(c)(2).[1] In addition, you must submit a new tabulation of the relative horizontal field plane pattern. Please note that pursuant to 47 C.F.R. §73.316(c)(3) the corresponding tabulation must use the same zero degree reference as the plotted pattern.

---

[1] With your new plot please state the rotation of your directional pattern with respect to true North.

Action on these two applications will be deferred for 60 days to allow you the opportunity to negotiate. Failure to respond within this time period will result in the subject applications being designated for a comparative hearing. Please note that any amendment must be submitted to the Secretary of the

PETER V. GURECKIS & ASSOCIATES

ENGINEERING STATEMENT

POSITIVE ALTERNATIVE RADIO, INC.
ASHEBORO, NORTH CAROLINA

I. INTRODUCTION

This Engineering Statement has been prepared on behalf of POSITIVE ALTERNATIVE RADIO, INC., who request a non-commercial FM broadcast station to operate on Channel 207A with an effective radiated power of 2.5 KW at Asheboro, North Carolina.

This application is mutually exclusive with the application requesting Channel 207C3 at Winston-Salem, North Carolina (BPED-910227MD).

Attached are F.C.C. Form 340, Section V-B and Figures 1 through 9.

II. ENGINEERING DISCUSSION

1. Antenna Site

The applicant proposes to utilize the licensed antenna site of Station WKXR (AM), Asheboro, North Carolina. The applicant proposes to mount the FM antenna, side mounted, on WKXR's north tower as shown in Figure 8, a Tower Sketch.

An Isolation Coil will be used to prevent any interaction between the AM and proposed FM operation.

2. Allocation Study

Figure 6 is a map showing the proposed contours to

EXHIBIT 2

Section V-B – FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

POSITIVE ALTERNATIVE RADIO, INC.

Call letters *(if issued)*	Is this application being filed in response to a window? [X] Yes [ ] No If Yes, specify closing date: NOVEMBER 19, 1991

Purpose of Application: *(check appropriate box(es))*

- [X] Construct a new (main) facility
- [ ] Construct a new auxiliary facility
- [ ] Modify existing construction permit for main facility
- [ ] Modify existing construction permit for auxiliary facility
- [ ] Modify licensed main facility
- [ ] Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- [ ] Antenna supporting-structure height
- [ ] Effective radiated power
- [ ] Antenna height above average terrain
- [ ] Frequency
- [ ] Antenna location
- [ ] Class
- [ ] Main Studio location
- [ ] Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served: City	County	State
207	ASHEBORO	RANDOLPH	NC

Class *(check only one box below)*

[X] A [ ] B1 [ ] B [ ] C3 [ ] C2 [ ] C1 [ ] C [ ] D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Oakie Mt. Northend of City Limits - Same Site as Station WKXR (AM)

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	35°	43'	26"	Longitude	79°	48'	21"

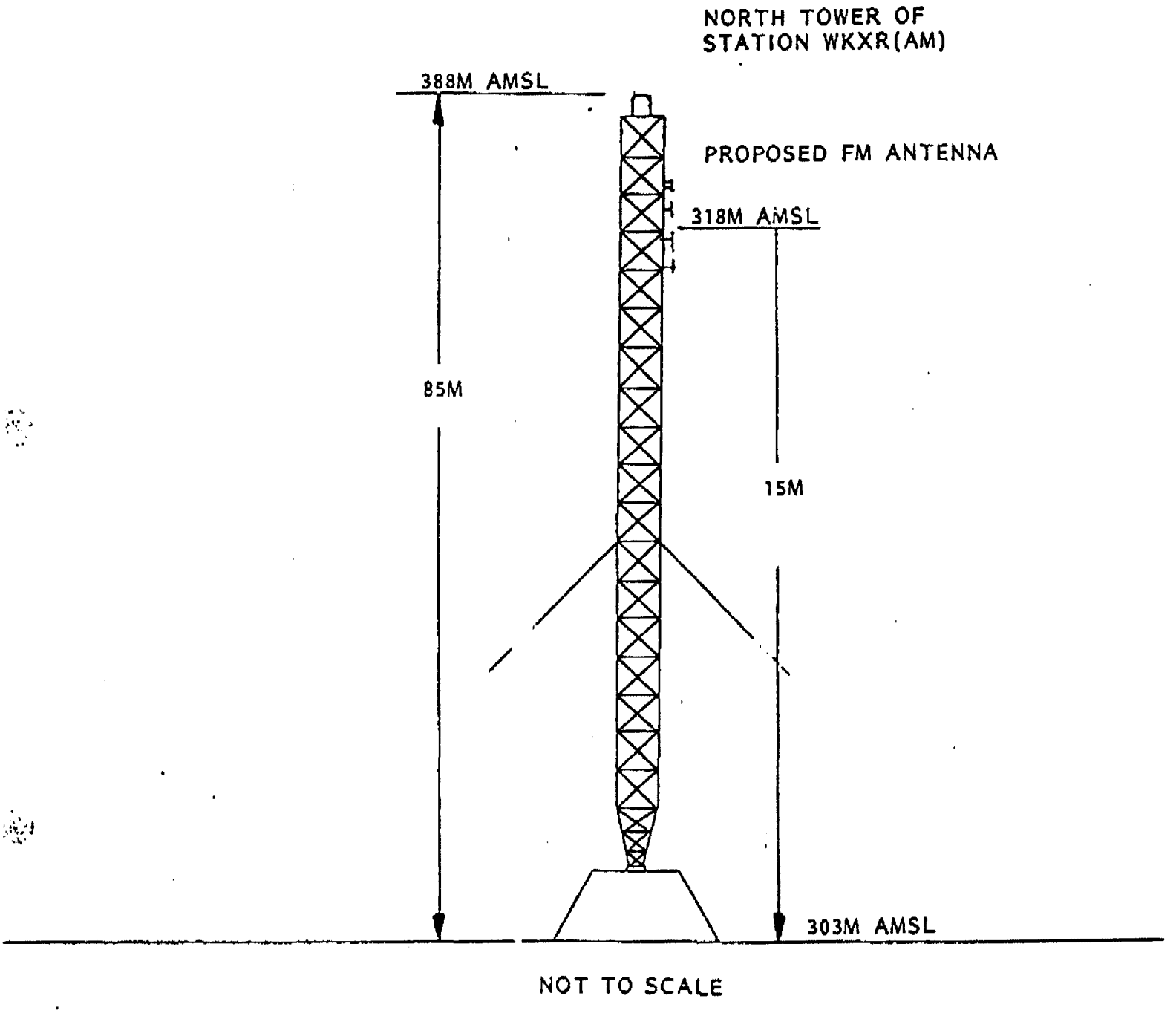
3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? [X] Yes [ ] No

If Yes, give call letter(s) or file number(s) or both. WKXR (AM)

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

N/A

EXHIBIT 2



NOT TO SCALE

FIGURE 8

TOWER SKETCH

P.A.R., INC.
ASHEBORO, N. C.

Peter V. Gureckis & Assoc.
Consulting Radio Engineers
Potomac, MD

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude	° ' "	Longitude	° ' "

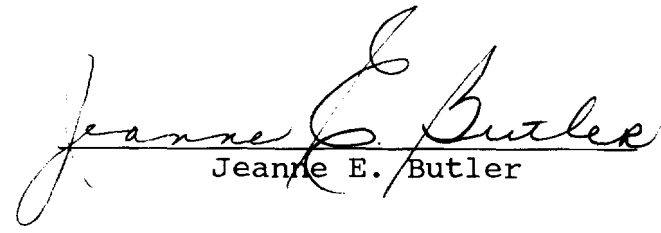
5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No

CERTIFICATE OF SERVICE

I, Jeanne E. Butler, a secretary in the law offices of Baraff, Koerner, Olender & Hochberg, P. C., do hereby certify that copies of the foregoing **"PETITION TO DENY"** were sent this 11th day of August, 1992 via first class mail, postage prepaid to the following:

Larry D. Eads, Esquire*
Mass Media Bureau
Federal Communications Commission
1919 M Street, N. W., Room 302
Washington, D. C. 20554

Booth, Freret & Imlay
1233 20th Street, N. W.
Washington, D. C. 20036



Jeanne E. Butler

*Hand Deliver

FIGURE 9 CONTINUED-PAGE 2
POSITIVE ALTERNATIVE RADIO, INC.
ASHEBORO, NORTH CAROLINA

The applicant will install a fence at 7 meters from the base of the AM-FM tower.

The applicant and the licensee of Station WKXR will have an agreement in effect that will require both stations to reduce power or cease operation when construction or maintenance is performed within 7 meters of the tower so that workers are not subject to radio frequency radiation that exceeds the ANSI